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November 9, 2000

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
12th Street Lobby B TW-A325
Washington, D.C. 20554

Re: *Ex Parte* Communications in WT Docket 96-86

Dear Ms. Salas:

On November 8, 2000, Lawrence R. Sidman, David R. Siddall and John M.R. Kneuer of Verner, Liipfert, Bernhard, McPherson & Hand; and Tapio Heikkila and Leo Fitzsimon of Nokia Inc. ("Nokia"), met with Kathleen O'Brien-Ham, Deputy Chief of the Wireless Telecommunications Bureau; D'wana Terry, Chief, Public Safety and Private Wireless Division; and Jeanne Kowalski, Deputy Chief, Public Safety and Private Wireless Division to discuss issues addressed in the above referenced proceeding. The substantive discussion during this meeting is reflected in the Comments and Reply Comments filed by Nokia in this proceeding. The attached summary of Nokia's positions also was distributed.

In accordance with Section 1.1206 of the Commission's Rules, 47 C.F.R. §1.1206, an original and one copy of this letter, including attachments, are being filed with your office. Please direct any questions concerning this matter to the undersigned.

Respectfully submitted,

David R. Siddall

cc: Kathleen O'Brien-Ham
D'wana Terry
Jeanne Kowalski

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Nokia Inc.
700 MHz Public Safety Band
Key Considerations

I. Nationwide Interoperability Standardization and General Use Channel Efficiency Standards are Inextricably Intertwined.

- Manufacturers need to know both the general use efficiency requirements and the interoperability standard when defining product development plans. By deciding these issues together, the Commission will define the critical technical parameters that manufacturers require to rapidly introduce equipment for the 700 MHz band.

- The Commission can achieve nationwide interoperability and achieve 6.25 kHz voice channel efficiency by (a) adopting Project 25 Phase I ("Phase I") for the interoperability channels and (b) mandating 6.25 kHz efficiency on the general use channels. Equipment manufacturers require a reasonable transition period to integrate Project 25 Phase I ("Phase I") functionality into 6.25 kHz equipment before the interoperability standard becomes mandatory.

II. Considerations of Spectrum Efficiency and Competition Should Lead the Commission to Mandate 6.25 kHz Efficiency on the General Use Channels.

- Spectrum efficiency in the 700 MHz band is critical. Unless the Commission mandates 6.25 kHz efficiency on the general use channels, 12.5 kHz technology will become the *de facto* standard for the entire 700 MHz band, thereby sacrificing spectrum efficiency and impairing future uses.

- Mandating 6.25 kHz efficiency in the general use channels will not delay the introduction of equipment in the 700 MHz band. The 700 MHz band is new in the U.S., and not allocated for any mobile radio use anywhere else in the world. Today, no manufacturers produce 700 MHz public safety equipment. All manufacturers will need time to modify their base station and terminal offerings to operate in the 700 MHz band.

- Multiple technologies are suitable for public safety use which achieve 6.25 kHz channel efficiency. Competing 6.25 kHz technologies include 2-slot TDMA, 4-slot TDMA, and 6.25 kHz FDMA. Even more efficient technologies are becoming available such as DCMA, which has been demonstrated by Comspace and achieves 3.125 kHz voice channel efficiency.

- If 12.5 kHz technology is allowed to take hold in the general use channels now, it will be far more difficult to migrate to 6.25 kHz technology in the future. There is no easy and low-cost solution for migrating from 12.5 kHz to 6.25 kHz at the system level. Critical systems components would need to be replaced to achieve a migration from 12.5 kHz to 6.25 kHz including: subscriber equipment transmitters, subscriber equipment software, base station transmitters, base station software, and system software. The costs involved in such a transition are significant and would create a serious barrier to migrating to 6.25 kHz technology for most public safety agencies.

III. A Reasonable Transition Period Before Phase I Becomes Mandatory is Essential and Will Expedite the Introduction of Equipment for General Use, Without Delaying Interoperability.

- Manufacturers will need time to modify their base station and terminal offerings to operate in the 700 MHz band. In addition, manufacturers of equipment designed to operate at 6.25 kHz efficiency in the general use channels will need a reasonable transition period in which to integrate Phase I functionality into their products.

- Interoperability in the 700 MHz band will only be necessary after incumbent TV operators vacate the band and two systems with different technology are deployed in the same geographic region. Given the years needed to plan and implement public safety radio systems and the fact that the DTV transition will not be complete until 2006 at the earliest, it is unlikely that any two such systems will be deployed in less than six to nine years. Accordingly, granting a reasonable transition period before Phase I capability is mandatory will not delay the availability of interoperability, and will accelerate the availability of spectrally efficient equipment for general use.

IV. There is a critical need to ensure competition in the 700 MHz equipment market.

- By mandating 6.25 kHz on the general use channels the Commission will ensure a vibrant competitive equipment market for the 700 MHz band. There are multiple competing 6.25 kHz technologies suitable for general use. In contrast, if the Commission allows 12.5 kHz technology to be deployed in the 700 MHz band, Phase I will become the *de facto* standard for the entire 700 MHz band. Currently, there is only one supplier of Phase I 12.5 kHz trunked infrastructure equipment, and there is no promise that any other supplier will emerge in the future. Allowing Phase I to dominate the 700 MHz band will perpetuate a monopolistic environment, denying public safety agencies the improved services and cost savings that a competitive environment will foster.